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DIALOG(R)File 352:Derwent WPI

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WPI Acc No: 1996-210816/199622

XRPX Acc No: N96-176407

Printing head for piezoelectric ink jet printer - electrically activates piezoelectric member to cause diaphragm to bend pressure chamber so as to eject ink from nozzle

Patent Assignee: MITA IND CO LTD (MTAI )

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Number of Countries: 007 Number of Patents: 004

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
EP 709200	A1	19960501	EP 95116823	A	19951025	199622 B
JP 8118662	A	19960514	JP 94262817	A	19941026	199629
TW 275663	A	19960511	TW 95111094	A	19951020	199635
<u>CN 1131092</u>	A	19960918	CN 95118228	A	19951026	199801

Priority Applications (No Type Date): JP 94262817 A 19941026

Cited Patents: 2.Jnl.Ref; JP 2217254; JP 5169654; US 4189734; WO 9209111

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
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EP 709200	A1	E 20	B41J-002/16	
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Designated States (Regional): DE FR GB IT

JP 8118662	A	12	B41J-002/16	
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TW 275663	A		G01D-015/18	
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CN 1131092	A		B41J-002/045	
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Abstract (Basic): EP 709200 A

The printing head includes a pressure chamber which contains ink.

The pressure chamber includes a diaphragm which is made of a flexible material with titan. An ink nozzle is linked with the pressure chamber.

A piezoelectric member includes a PZT layer which is chemically bonded to an outside of the diaphragm of the pressure chamber.

The piezoelectric member is electrically activated to cause the diaphragm to bend into the pressure chamber so as to eject ink from the nozzle. The diaphragm is made of a titan plate. The PZT layer is formed by depositing crystals on the diaphragm.

ADVANTAGE - Improved printing accuracy. High positioning accuracy and high bonding strength. Stable. Improved production efficiency.

Dwg.1/14

Title Terms: PRINT; HEAD; PIEZOELECTRIC; INK; JET; PRINT; ELECTRIC;

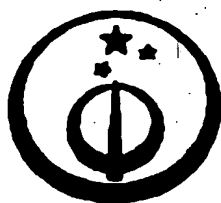
ACTIVATE; PIEZOELECTRIC; MEMBER; CAUSE; DIAPHRAGM; BEND; PRESSURE; CHAMBER; SO; EJECT; INK; NOZZLE

Derwent Class: P75; T04; V06

International Patent Class (Main): B41J-002/045; B41J-002/16; G01D-015/18

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代理人 张天舒

权利要求书 2 页 说明书 10 页 附图页数 13 页

[54]发明名称 一种喷墨打印机用的打印头及其制造方法

[57]摘要

一种喷墨打印机用的打印头，它有一个装墨的压力室，该压力室有一含钛弹性材料制成的膜片，一个与该压力室相通的喷墨嘴，以及包括用化学方法粘接在压力室膜片的外面 PZT 层的压电元件，该压电元件由电致动使膜片弯向压力室，使墨从喷墨嘴中喷出。

